REMARKS/ARGUMENTS

Interview Summary

Applicants thank the Examiner for the courtesies extended in the Applicant-initiated interview between Examiner Gregory Strimbu and James Raakman, conducted by telephone on August 24, 2009.

Agent for the Applicants discussed the subject matter of the present invention, highlighting the one-piece master frame with integrally injection moulded mullion as recited in the independent claims. The present application enables one of skill in the art to put into practice the claimed invention, providing a frame assembly for a window or door having a unitary injection molded sash frame slidably mounted in a unitary injection molded master frame. The injection molded master frame includes an integrally molded mullion, and the invention solves problems not encountered or addressed by the prior art regarding moldability of the frame (including ejectability from a mold), ability to install the sash frame in the master frame, and capability to meet, as one of skill in the art would understand, window performance requirements including the ability to inhibit wind and water penetration, and forced entry.

Examiner Strimbu suggested that to further distinguish claim 1 over the prior art it would be helpful to recite structural features of the mullion that facilitate injection molding of the master frame. Agent for the Applicants agreed that this should be acceptable.

Agent for the Applicants requested clarification of the 35 USC 132(a) new matter rejection regarding amendments to claim 9, and inquired if this should have been a s.112 first paragraph rejection instead. Agent for the Applicants explained that the cavity 205 forms part of the interlacing configuration along the lift-up position 204 (see Fig. 8), and receives an upper portion of the master frame when lifted up for installation and removal. After considering this matter further, Examiner

Strimbu called back and stated that the amendments to claim 9 did not introduce new matter, and no amendment to the specification was required.

Finally, Agent for the Applicants discussed the s.112, second paragraph rejection based on indefiniteness of claim 7. Examiner Strimbu questioned whether or not the "interlacing configuration" recited in claim 7 included the "tongues" and "grooves" of claim 6. After some discussion, it was agreed and understood that the interlacing configuration, characterized by a vertical gap between the upper master and sash frame members permitting lift-up for installation and removal was distinguished from the tongues and grooves providing upper and lower tracks for lateral stability of the sash frame in the master frame.

Remarks Regarding Claim Amendments

Claim 2 has been amended to include further details of the structure of the mullion, including the parallel and perpendicular wall segments and the absence of any internal enclosed cavities. This is supported in the specification at, for example, Figures 11, and 7a, and at paragraphs 106-108 and paragraph 72.

Claims 3 and 4 have been amended to refer to wall segments for consistency with amended claim 2.

Claim 7 has been recast in independent form, including all the limitations of former claims 2, 5, and 6.

Claim 17 has been amended to include the limitations added by this amendment to claim 2.

Claim 21 has been recast as a dependent claim, depending from amended claim 17.

Claims 24 and 25 have been canceled.

Applicant submits no new matter is added by this amendment. Furthermore, applicant requests that the amendment be entered on the basis that this

amendment places the application in condition for allowance, or in better condition for appeal.

Remarks Regarding Specification Rejections

The Examiner had raised a new matter objection under 35 USC 132(a) for adding to claim 9 "the first cavity receiving therein an upper portion of the sash frame when the sash frame is lifted up relative to the master frame for installation and removal." This issue was resolved in the Examiner interview of August 24, 2009. The specification supports, for example, that the cavity 205 forms part of the interlacing configuration 202 along the lift position 204, providing vertical clearance 200 so that the upper end of the sash frame can be lifted into the clearance 200 clearing the bottom end of the sash from the lower track (see Figs 8, 8A and 9A-9C; also see para. 95 and 100).

Remarks Regarding s.112 Rejections

The Examiner rejected claims 7-16 for being indefinite, stating that it was unclear whether or not the first sash frame interlacing configuration of claim 7 includes the tongues and grooves of claim 6. This issue was also resolved in the telephone interview of August 24, 2009. The tongues and grooves provide lateral stability for the sash frame along the sill and header to slidably support the sash frame in the master frame. The interlacing configuration provides vertical clearance between facing surfaces of the upper horizontal master frame member and the upper horizontal sash frame member, to enable lifting the sash frame relative to the master frame for installation and removal of the sash frame.

Remarks Regarding s.103(a) Rejections

Claims 2-16 and 26

The Examiner rejected claims 2-16 and 26 as obvious under Davies (U.S. Pat. No. 5,280,686) in view of Kownacki et al. (U.S. Pat. No. 6,749,797).

Applicant traverses with amendment. Applicant relies on the affidavit of Petta, dated February 27, 2009, and particularly paragraphs 8-15 thereof regarding the teaching that Davies and Kownacki provide to one of skill in the relevant art.

The Examiner asserted that Applicants' previous arguments regarding non-obviousness of claim 2 in view of Davies and Kownacki were not persuasive, because, the Examiner alleges:

- One of ordinary skill in the art would realize that certain features of the frame assembly of Davies would not be easily moulded and could be modified;
- One of ordinary skill in the art could change the shape of the frame assembly of Davies so that it could more easily be molded and then subsequently add the portions of the frame assembly that can not be easily molded to reach the same final shape as disclosed by Davies; and
- Kownacki teaches performing post mold operations in step 98 (e.g. trimming); thus a person combining the teachings of Davies and Kownacki would know that some shapes of Davies could be molded in a shape that can be more easily molded and then cut into the final shape as disclosed by Davies (from page 11 and 12 of the Office Action).

Applicants respectfully submit that the above assertions, in forming a basis for denying patentability of claim 2, assume that modifying certain features of the Davies frame assembly, changing the shape of the frame assembly, and/or developing a process in which a modified frame is injection molded and then cut or trimmed to form the shape of Davis are all de facto non-inventive activities, ineligible for patent protection. Applicants submit that such a conclusion is improper because it is based on conjecture rather than on concrete evidence in the record (as stated as a requirement for rejections in, for example, the Zarko case cited previously).

Applicants submit that none of the art of record discloses an injection molded window frame with an integrally injection molded mullion. To the extent that the Examiner's position is that the mullion is a feature that could not easily be molded, but could be added subsequently to molding a frame without a mullion, Applicants submit that such a structure falls outside the scope of claim 2 and fails to render claim 2 obvious.

Furthermore, Applicant submits that claim 2, as amended, recites that the integrally injection molded mullion has a profile consisting essentially of a plurality of wall segments including parallel wall segments and perpendicular wall segments, the wall segments having a generally uniform thickness, and the mullion being free of internal enclosed chambers to facilitate injection molding of the master frame. The vertical post 33 of Davies includes an internal enclosed chamber (e.g. where 61 is typed in Fig. 1). The gas assist injection molding process of Kownacki cannot produce the chamber-free, uniform thickness wall segment structure as claimed. For all of these reasons, Applicants submit that claim 2 is allowable over Davies and Kownacki. Reconsideration and withdrawal of the rejection is requested.

Claims 3-6 and 26 have claim 2 as their base claim, and are submitted as allowable for at least the same reasons.

Claim 7 is an independent claim that recites most of the limitations of amended claim 2. Omitted in claim 7 are details regarding the wall segments and absence of enclosed chambers in the mullion. Claim 7 additionally recites a vertical clearance between the upper members of the sash frame and master frame so the sash frame can be lifted up relative to the master frame for installation and removal, and the vertically aligned surfaces between which the vertical clearance is provided being integrally moulded with the respective master and sash frames. This structure provides the installation/removal functionality shown in Figs. 9A-9C, wherein the sash frame is lifted up so the upper member thereof occupies

the vertical clearance, and the lower member thereof is clear of the master frame sill member to swing laterally thereover.

Davies specifically teaches that no such vertical clearance is provided between the sash and outer frame (col. 6, lines 62-65). Rather, in Davies the sash is installed by engaging the bottom of the sash into the sill member of the outer frame, then swinging the upper end of the sash into alignment beneath the header of the outer frame. A separate tongue-like snap-in element is then inserted into a slot in the underside of the header, and the upper end of the sash frame is thereby laterally retained within the outer frame.

Applicants respectfully submit that since the reference teaches that "there is insufficient space [i.e. vertical clearance] for the door to be lifted to release the lower edge so that the door cannot be removed in this manner" (col. 6, lines 62-65), it is improper for the Examiner to conclude that one skilled in the art would be taught by the reference to provide such clearance. Rather, Applicants submit that a skilled person in the art would understand that Davies does not provide an interlacing configuration providing a first vertical clearance between vertically aligned surfaces so that the sash frame can be lifted up for installation and removal, and the vertically aligned surfaces between which the vertical clearance is provided being integrally molded with the respective master and sash frames, as required by claim 7. Withdrawal of the rejection is requested.

Claims 8-16 have claim 7 as their base claim and are allowable for at least the same reasons.

Furthermore, regarding claim 9, the "cavity" of Davies as identified by the Examiner is open towards the lower horizontal member by having a slot formed by cutting with a router. The slot is then filled by the snap-in element 78 (col. 7, lines 3-7 and Fig. 4). This fails to disclose or make obvious a cavity that in an as-moulded and operating condition of the window is open towards the lower horizontal member. Nor does the "cavity" (e.g. where 80 is typed in Fig. 4) in any

way receive an upper portion of the sash frame when the sash frame is lifted up for installation and removal. For these additional reasons, claim 9 (and claims depending therefrom) are allowable over the art of record.

Furthermore, regarding claim 12, neither Davies nor Kownacki teach a second interlacing configuration providing a second vertical clearance at the bottom sill end of the window enabling lift-up of the sash frame relative to the master frame when the assembly is installed in an inverted position (i.e. to reverse the position of the vent and fixed sides of the assembly). Applicants submit that claim 12, and those claims depending therefrom, are allowable for these additional reasons.

Claims 2 and 24-26

The Examiner rejected claims 2 and 24-26 as unpatentable over Davies (U.S. Pat. No. 5,280,686) in view of Arbetter (U.S. Pat. No. 5,189,841).

Applicant respectfully traverses with amendment. Applicant relies on the affidavit of Gabriel Petta, dated February 27, 2009 and particularly paragraph 18-21 thereof regarding the teaching that Dvies and Arbetter provide one of skill in the art. Arbetter does not teach or suggest a window frame with a mullion. Further, Arbetter purports to solve the problem of ejecting the molded articles from the mold by disassembling mold segments from the article once cured. Arbetter is silent regarding installing the sash frame into the master frame, and it is not readily apparent how (or even if) this required step could be accomplished. In short, Arbetter fails to provide any of the deficiencies noted above regarding the combination of Davies and Kownacki. Reconsideration and allowance of claim 2 (as amended) is respectfully requested.

Claims 24 and 25 have been canceled. Claim 26 depends from claim 2 and is submitted as allowable for at least the same reasons as claim 2.

Claim 17

The Examiner rejected claim 17 as unpatentable over Davies (U.S. Pat. No. 5,280,686) in view of Arbetter (U.S. Pat. No. 5,189,841).

Applicant respectfully traverses with amendment.

Claim 17 as amended generally recites the same limitations as claim 2, including the integrally injection molded mullion, and the wall segments, uniform thickness, and the absence of internal enclosed chambers therein. Applicants submit that claim 17 is allowable over Davies and Arbetter for at least the same reasons as claim 2.

Claims 21-23

Claims 21-23 are rejected as unpatentable over Davies in view of Kownacki et al., and further in view of Japanese Patent Publicaton 2002-227551.

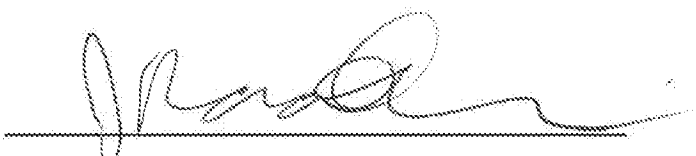
Applicants respectfully traverse with amendment.

Claims 21-23, as amended, have claim 17 as their base claim. Applicants submit that claims 21-23 are allowable for at least the same reasons as claim 17.

Applicant respectfully submits that this application is in condition for allowance.

Respectfully submitted,

BERESKIN & PARR LLP/S.E.N.C.R.L., s.r.l.

By 

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